



## *Salvadora alii* Rajput & Syeda (Salvadoraceae): A new distributional records for Maharashtra State, India

Tanveer A. Khan<sup>1</sup>✉, D. N. Undirwade<sup>2</sup>

<sup>1</sup>Department of Botany, H. J. Thim College of Arts and Science, Mehrun, Jalgaon, Maharashtra, India

<sup>2</sup>Department of Botany, B.P. Arts, S.M.A. Science, K.K.C. Commerce College, Chalisgaon, Maharashtra, India

✉ **Corresponding author:**

Email: tanveerkhan04@gmail.com

### Article History

Received: 08 March 2020

Accepted: 19 April 2020

Published: April 2020

### Citation

Tanveer A. Khan, D. N. Undirwade. *Salvadora alii* Rajput & Syeda (Salvadoraceae): A new distributional records for Maharashtra State, India. *Species*, 2020, 21(67), 161-163

### Publication License



© The Author(s) 2020. Open Access. This article is licensed under a [Creative Commons Attribution License 4.0 \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/).

### General Note



Article is recommended to print as color digital version in recycled paper.

### ABSTRACT

The present paper deals with an addition of new taxa of flowering plant to the flora of Maharashtra State. During the botanical explorations of Satpuda range of Khandesh region *Salvadora alii* Rajput & Syeda (Salvadoraceae) is a robust bushy shrub or small trees that has been collected first time from Tapi river bed from the Khandesh region of Maharashtra and second distributional records for India. This plant having few population in Khandesh area. Detailed taxonomic description, photographs and relevant informations are provided here for easy identification.

**Key words:** *Salvadora alii* Rajput & Syeda, New records, Maharashtra.

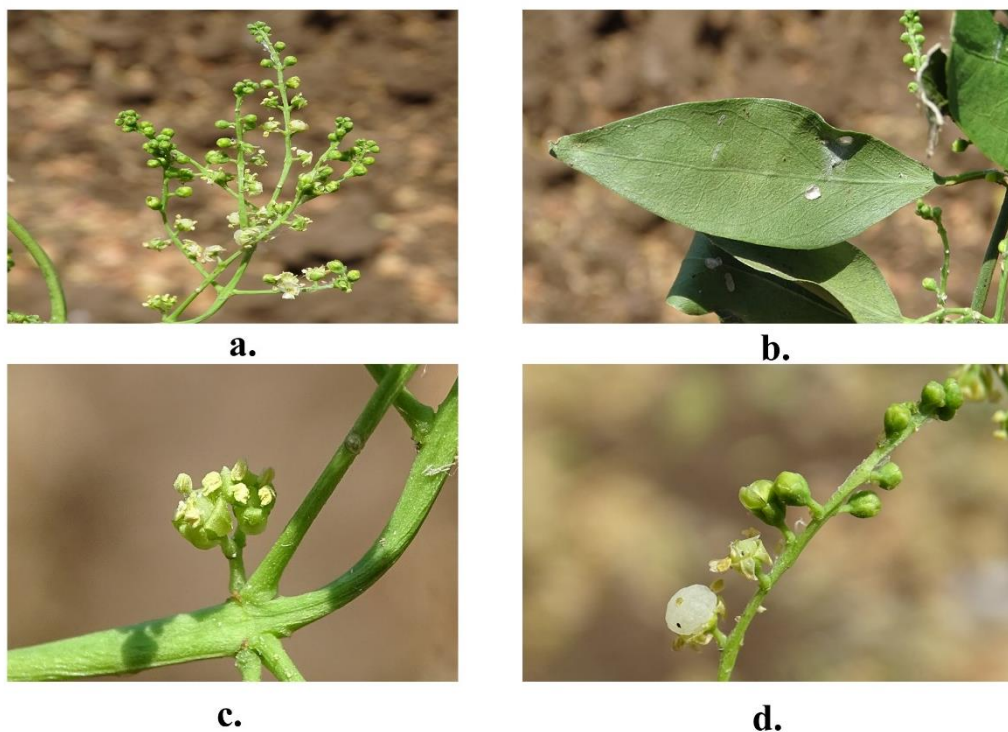
## 1. INTRODUCTION

It is a well-recognized fact that up to date and well-illustrated taxonomic works on Indian plants should be prepared in order to facilitate perspective understanding and easy access to plant species. In this contents the authors has undertaken the taxonomic work of plants from Khandesh region in particular. Khandesh be made up of three districts Dhule, Jalgaon and Nandurbar. It lies at the Northwestern corner of the Deccan plateau, in the valley of the Tapti river, and is bound to the North side Satpuda hills, East side Vidarbha area, South side having Ajanta range, be a part of Marathwada area of Maharashtra, and to the West by the Northern most ranges of the Western Ghats, and beyond that the coastal plain of Gujarat. Khandesh area located approximately between 20° 7' and 22° 8' N. and 73° 41' and 76° 29' E. The forest of Satpuda range is mostly of the dry deciduous type and one of the important forests of Maharashtra in India. Khandesh area exhibit abundant diversity of plants while change in topography. Khandesh area have not been explored widely except a few sporadic reports on floristic of Yadav (2003), Patil (2003), Kshirsagar (2008), Khan (2015), and Khan (2019).

Salvadoraceae are a very small family comprising of 3 genera *Azima* Lamk., *Dobera* Juss., *Salvadora* Linn. and c. 10 species distributed mainly in the warm and dry regions of Old World (Mabberley, 2008). Four species of *Salvadora* L. are distributed from warmer parts of Africa to tropical Asia (Mabberley, 2008). Two species, viz., *S. oleoides* Decne. and *S. persica* L. are reported from Maharashtra (Singh *et al.* 2001, Almeida 2001).

## 2. RESULTS AND DISCUSSION

During the botanical explorations of various parts of Khandesh region, a few specimens of an interesting species of *Salvadora alii* Rajput & Syeda were first time collected by the authors from the Purna river and Tapi river beds of Khandesh region, of Maharashtra during the months of November-February, 2018 and 2019, respectively. The species was identified with the help of pertinent literature (Quereshi, 1972; Tahir *et al.*, 2010 and Shaikh Mujaffar *et al.*, 2012), the specimens were identified as *Salvadora alii* Rajput & Syeda, a species hitherto unrecorded from Maharashtra and the taxa were confirmed by Dr. Shaikh Mujaffar, Dept. of Botany, S.N.P.G. Govt. College, Khandwa (M.P). We have gone through all pertinent literature (Almeida 2001, Singh *et al.* 2001, Patil 2003, Kshirsagar 2008, Khan 2015 and Khan 2019.) and also verified the plant materials with Botanical Survey of India Pune. To find out the occurrence, distribution and habitat of this species.



**Fig.1. *Salvadora alii* Rajput & Syeda a.Twig b.Leaf c.Flower d.Fruit**

### Plate-I

We observed that *Salvadora alii* Rajput & Syeda were not recorded in any Maharashtra State floras. This proved that *Salvadora alii* Rajput & Syeda rare to the Maharashtra as well as India. Hence, it is reported here as an addition to the flora of Maharashtra and second distributional records for India. The plant materials are deposited at H. J. Thim College, Jalgaon, Maharashtra. A brief description along with photographs is provided to facilitate easy identification of this species in field.

*Salvadora alii* Rajput & Syeda, Pak. J. Bot. 42: 63. 2010; Shaikh Mujaffar *et al.*, Rheedia 22 (2) 80-82.2012. Mishwak, Pilu. Plate-I. Robust bushy shrubs or small trees, scandent, evergreen; branches drooping. Stems erect, terete, glaucous. Leaves simple, lanceolate, opposite-decussate, 3.5-6 x 1.5-3 cm, 3-nerved, coriaceous, cuneate at base, entire margins, mucronate at apex, glabrous; stipules ovate, caducous, up to 0.1 mm long; petioles thick, 1.2-2.6 mm long. Inflorescences a compound, lax panicle, axillary or terminal, 5-22 cm long. Flowers actinomorphic, 0.2-0.4 mm long, bisexual; pedicels slender, 0.1-0.2 mm long; bracts minute, ovate, caducous, green and acute at apex. Calyx 4-lobed; lobes rounded, up to 0.1 mm, thick, greenish. Corolla 4-lobed; lobes oblong, 0.1-0.2 mm long, obtuse, deeply cleft, inflexed, persistent. Stamens 4, free, exserted; anthers oblong, up to 0.1 mm length, pale yellow; pollens slightly spherical, pollen surface having tricolporate orientation; colpi elliptical to elongated. Ovary globular, up to 0.1 mm, thick, glabrous, light green, 1-loculed; style absent; stigma capitate. Fruits a berry, globose, smooth, greenish, white when ripe; seed 1, globose, 4-4.5 x 0.1-0.3 mm, smooth, roughly brown.

**Flowering and Fruiting:** December-April

**GPS Reading:** N 21° 3' 27.63" E 76° 7' 46.73" (Elevation 232.4 m)

**Distribution:** Rare. Tapi and Purna river bed of the Khandesh region.

**Specimens examined:** Jalgaon Dist. Tapi river bed TAK 8173; Purna river TAK 8217. Nandurbar District. Akkalkuwa, TAK 8510.

**Note:** *Salvadora alii* Rajput & Syeda can be easily identified by its lanceolate leaves with cuneate base and white berries.

### Acknowledgement

The authors wish to express their gratitude to Dr. Mujaffar Shaikh, (Department of Botany, S.N.P.G. Govt. College, Khandwa (M.P), who confirmed the identity of this species. Dr. Vinod Kumar Gosavi for their support. Thanks are also due to the Principal, H.J. Thim College, Jalgaon, for providing laboratory and library facilities.

**Funding:** This study has not received any external funding.

**Conflict of Interest:** The authors declare that there are no conflicts of interests.

### REFERENCE

- Almeida, M.R. 2001. *Flora of Maharashtra*. Thomas Paul Almeida for Blatter Herbarium, St. Xavier's College, Mumbai, 3A: 192-194.
- Khan T.A., V.V. Desai, and N.R. Gawande, 2015. Four New Flowering plant Records from Satpuda Range of Jalgaon District, (MS) India. *Bioscience Discovery*, 6(1) 45-48.
- Khan T.A. 2019. Wild Flowers of Jalgaon District A succinct field guide. Prashant publication Jalgaon. 89-110.
- Kshirsagar S.R. and D.A. Patil, 2008. Flora of Jalgaon District, Maharashtra. (Bishen Singh Mahendra Pal Singh, Dehradun, India). 41-376.
- Mabberley, D.J. 2008. *Mabberley's Plant-Book: A portable dictionary of plants, their classification and uses*. Third Edition. Cambridge University Press, Cambridge.
- Patil D.A. 2003. Flora of Dhule and Nandurbar District (Maharashtra), Bishan Singh Mahendra Pal Singh Dehradun, 361.
- Qureshi, S. 1972. Salvadoraceae. In: *Flora of West Pakistan*. Vol. 29. University of Karachi, Karachi. 1-4.
- Shaikh Mujaffar, C.M. Solanki and S. Ray. (2012). *Rheedia* Vol. 22(2) 80-82.
- Singh N.P., P.Lakshminarasimhan, S.Karthikeyan and P.V.Prasanna, 2001. Fl. Maharashtra St. Dicot. 2: 314-316.
- Tahir, S.S., Rajput, M.T. & F. Korejo 2010. A new species of *Salvadora* (Salvadoraceae) from Sindh, Pakistan. *Pak. J. Bot.* 42: 63- 66.
- Yadav S.S., V.S. Patil and V. Mathew 2003. Seven new flowering plant records from Khandesh Satpuda, Maharashtra State. *Plant Archives*. 3 (1):129-131.